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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HUYNH, SON P

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 12/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.

09/359,561

Applicant(s)

LUDVIG ET AL.

Examiner

Son P Huynh

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In claim 3, the term " the composited frame" (lines 3) lacks of antecedent basis.

Double Patenting

3. Claims 2-8, 14-17, 19-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 10-13 of U.S. Patent No. 6,415,437 (hereinafter referred to as '437).

Regarding claim 2, claim 1 of '437 recites a method for producing a digital bitstream containing an interactive program guide comprising combining, in a frame synchronized manner, background imagery with at least one video sequence and at

least one graphic containing program guide information to form a composited frame sequence; and encoding the composited frame sequence to compress information therein to form a digital bitstream (see col. 8, line 57-col. 9, line 8). Thus, claim 2 is broader in scope than patent claim 1. The digital bitstream containing an interactive program guide reads on "encoded user interface." It is obvious that video frame sequence is encoded within a head end of an information distribution system in order to provide encoded video frame sequence to plurality of user.

Regarding claim 3, the limitations being claimed correspond to limitations of claim 1 of '437 (lines 7-8 and lines 18-19).

Regarding claim 4, the limitations being claimed correspond to limitations of claim 1 of '437 (lines 7-17).

Regarding claim 5, the limitations being claimed correspond to limitations of claim 2 of '437.

Regarding claim 6, the limitations being claimed correspond to limitations of claim 3 of '437.

Regarding claim 7, the limitations being claimed correspond to limitations of claim 4 of '437.

Regarding claim 8, the limitations being claimed correspond to limitations of claim 5 of '437.

Regarding claim 14, the limitations being claimed correspond to limitations of claim 6 of '437.

Regarding claim 15, claim 10 of '437 recites the limitations of claim 15 wherein the encoded user interface is the digital bitstream representing interactive program guide. Claim 15 is broader in scope than patent claim 10. It is obvious that the encoder is coupled to the compositor and located within a head end in order to receive frame sequence and provide the encoded frame sequence to plurality of user.

Regarding claim 16, the limitations being claimed correspond to limitations of claim 10 of '437.

Regarding claim 17, the limitations being claimed correspond to limitations of claim 10 of '437.

Regarding claim 19, the limitations being claimed correspond to limitations of claim 11 of '437.

Regarding claim 20, the limitations being claimed correspond to limitations of claim 112 of '437.

Regarding claim 21, the limitations being claimed correspond to limitations of claim 13 of '437.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Terasawa et al. (US 6,147,714).

Regarding claim 15, Terasawa et al. discloses switcher selects a plurality of predetermined broadcast channels from the input TV channels and outputs them to a promotion channel generating device 302. The switcher also outputs the selected video signals to JPEG encoder 310 built in an electronic program guide data generating device 309. EPG data generated by the EPG data generating device 309 is then transmitted to the promotion channel generating device. The promotional channel

generating device then encodes the EPG data and MPEG video/audio and transmits to multiplexer 304-1 for transmitting to a receiver. Therefore, Terasawa teaches switcher and EPG data generating device 309 read on the compositor (see figures 1 and 2).

Regarding claim 16, Terasawa et al. discloses the compositor produces a plurality of frame sequences and the encoder comprises a plurality of encoders for encoding each frame sequence in the plurality of frame sequences to form a plurality of bitstreams (see figures 1 and 2).

Regarding claim 17, Terasawa et al. discloses a multiplexer for multiplexing the plurality of bitstreams into a transport stream (see figures 1 and 2).

Regarding claim 18, Terasawa et al. discloses transport stream has a unique code (see figures 14, 19). Inherently, the multiplexer assigns a different identification code to each bitstream.

Regarding claim 19, Terasawa et al. discloses program graphics generator for producing the program guide graphics and foreground overlay graphics, where the foreground overlay graphics are included into the transport stream as user data (see figure 1).

Regarding claim 20, Terasawa et al. discloses program graphics generator for producing the program guide graphics and foreground overlay graphics, where the foreground overlay graphics are included into the transport stream as private data (see col. 10, lines 32-58).

Regarding claim 21, Terasawa et al. discloses the encoder is an MPEG encoder (see figure 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-10, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al. (US 6,147,714), and in view of Alexander et al. (US 6,177,931).

Regarding claim 2, Terasawa et al. discloses a method of producing an encoded user interface comprising: producing a video frame sequence representing an interactive program guide by combining background imagery with still picture and at

least one graphic containing program guide information to form the video frame sequence;

encoding the video frame sequence within a head end of an information distribution system (see figures 1, 7 and 8). However, Terasawa does not explicitly disclose combining video sequence in the video frame sequence.

Alexander discloses PIP window 12 for displaying video program, AD window 14 and AD window 16 for displaying advertisements (see figure 1). Inherently, the video sequence is combined in a video frame sequence. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terasawa to incorporate the feature as taught by Alexander in order to provide detail information of video program to user.

Regarding claim 3, Terasawa et al. discloses the step of encoding the composited frame sequence to compress information therein to form a digital bitstream (see figure 1).

Regarding claim 4, Terasawa et al. in view of Alexander teaches a method as discussed in the rejection of claim 2. Terasawa further teaches compositing, frame by frame, still picture, background pictures and plurality of program guide graphics to form a plurality of program guide frame sequence that represent individual program guide pages. However, Terasawa does not explicitly disclose compositing at least one video sequence to form a background sequence.

Alexander teaches an electronic program guide comprises windows for displaying video sequence, and other information (see figure 1). Inherently, the method comprises compositing video sequence to form a background sequence. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terasawa to incorporate a feature as taught by Alexander in order to provide more information of a television program to viewer.

Regarding claim 5, Terasawa et al. discloses separately encoding each of the program guide frame sequences to form a digital bitstream for each of the program guide frame sequences (see figure 1).

Regarding claim 6, Terasawa et al. discloses multiplexing each of the digital bitstreams into a common transport stream (see figure 1).

Regarding claim 7, Terasawa et al. in view of Alexander et al. discloses a method as discussed in the rejection of claim 6. However, Terasawa et al. fails to disclose fifteen program guide sequences are formed, encoded, and contained in a common transport stream. It is obvious to one of ordinary skill in the art to have a certain numbers of program guide sequences encoded in a common transport stream in order to achieve design technology.

Regarding claim 8, Terasawa et al. discloses encoding an audio signal associated with one of the video sequences; and multiplexing the encoded audio signal into the common transport stream (see figure 1).

Regarding claim 9, Terasawa et al. discloses the video frame sequence is a television program (see figure 1).

Regarding claim 10, Terasawa et al. discloses the video frame sequences comprise different categories (see figure 37). Inherently, the video frame sequence comprises an advertising program.

Regarding claim 14, Terasawa et al. discloses multiplexing foreground program guide data into the common transport stream (see figures 1 and 8).

8. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al. (US 6,147,714) in view of Alexander et al. (US 6,177,931), and further in view of Civanlar et al. (US 5,623,308).

Regarding claim 11, Terasawa et al. in view of Alexander et al. discloses a method as discussed in the rejection of claim 2. Terasawa et al. further discloses transmitting programs in different motions (see col. 14, lines 53-65). However,

neither Terasawa et al. nor Alexander et al. specifically discloses the video frame sequence is encoded using slice based encoding.

Civanlar et al. discloses encoding video frame sequence using slice based encoding (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terasawa et al. with a method of slice based encoding as taught by Civanlar et al. in order to increase efficiency of the system.

Regarding claim 12, Civanlar et al. discloses slice based encoding encodes different regions in a different manner than the encoding that is performed upon other portions of the video frame sequence (see figures 3 and 5).

Regarding claim 13, Civanlar et al. discloses each region is assigned a unique program identifier (see figures 3 and 5).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mugura et al. (US 6,111,614) discloses method and apparatus for displaying an electronic menu having components with differing levels of transparency.

Yuen et al. (US 6,477,705) discloses method and apparatus for transmitting, storing and processing electronic program guide data for on-screen display.

Noguchi et al. (US 6,163,345) discloses method and apparatus for providing station and program information in a multiple station broadcast system.

Khansari et al. (US 6,141,448) discloses low-complexity error resilient coder using a block based standard.

Lawler (US 5,758,259) discloses automated selective program guide.

Billock et al. (5,619,249) discloses telecasting service for providing video programs on demand with an interactive interface for facilitating viewer selection of video programs.

White et al. (US 5,596,373) discloses method and apparatus for providing program oriented information in a multiple station broadcast system.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Son P. Huynh
November 27, 2002


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